

ABSTRACT OF THE DISCLOSURE

This invention relates in general to a method for molecular fingerprinting. The method can be used for forensic identification (*e.g.* DNA fingerprinting, especially by VNTR), bacterial typing, and human/animal pathogen diagnosis. More particularly, molecules such as polynucleotides (*e.g.* DNA) can be assessed or sorted by size in a microfabricated device that analyzes the polynucleotides according to restriction fragment length polymorphism. In a microfabricated device according to the invention, DNA fragments or other molecules can be rapidly and accurately typed using relatively small samples, by measuring for example the signal of an optically-detectable (*e.g.*, fluorescent) reporter associated with the polynucleotide fragments.

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